Amendments to the Claims

Claim 1 **(Currently Amended)** A device ~~device,~~ comprising:

a sensor platform having a planar optical waveguide~~, as part of a sensor platform, and, connected to said platform directly or by means of a sealing medium,~~; and

a sealing layer ~~(g) (according to Figure 1), said layer~~ forming, either directly ~~a tight seal~~ or with a ~~by means of the~~ sealing medium, a tight seal with said planar optical waveguide ~~tightly sealing layer, said device comprising~~, said sealing layer having a plurality ~~multitude~~ of recesses opening at least ~~at least open~~ towards said ~~the~~ sensor platform, each of said recesses forming ~~which form~~ a corresponding ~~multitude of~~ sample compartment ~~compartments~~ in a 2-dimensional arrangement, wherein

~~in~~ each of said sample compartments has different biological or biochemical recognition elements~~,~~ for ~~the~~ specific recognition and binding of different analytes~~, are~~ immobilized in five or more discrete measurement areas ~~(d) (according to Figure 1)~~ in a two-dimensional array on said planar optical waveguide ~~in these sample compartments, wherein~~

said measurement areas are in optical interaction with ~~the~~ excitation light emanating from said optical waveguide, as part of said ~~a~~ sensor platform which forms a demarcation of said sample compartments, ~~wherein~~ and

said sample compartments are adapted such that ~~operable to be cleared from received~~ sample or reagent solutions received therein are removable therefrom and ~~to receive, in the following, optionally without washing steps,~~ further sample or reagent solutions are receivable therein~~, which are supplied to the same said sample compartments~~.

Claim 2 **(Currently Amended)** A device according to claim 1, wherein at least one of said measurement areas~~,~~ in each of said ~~the~~ sample compartments is~~, out of the five or more measurement areas in a single sample compartment, one or more measurement areas are used~~ for referencing.

Claim 3 **(Currently Amended)** A device according to claim 2, wherein said referencing measurement areas reference ~~for referencing the~~ same chemical or optical parameters ~~are used~~ in a number of said ~~several~~ sample compartments distributed over said ~~the~~ sensor platform,

whereby aso that the lateral distribution of the said chemical or optical parameters over said the sensor platform is can be determined.

Claim 4 **(Currently Amended)** A device according to claim 1, wherein said measurement areas are in optical interaction with an the evanescent field of the excitation light guided in said planar optical waveguide.

Claim 5 **(Currently Amended)** A device according to claim 1, wherein said planar the optical waveguide, as part of the sensor platform, is a multi-mode or single-mode waveguide comprising an anorganic material, preferably glass, or an organic material that is, preferably a plastic, which is preferably selected from the group comprising polymethylmethacrylate, polycarbonate or polystyrene, which materials are optically transparent at least at an the excitation wavelength and a luminescence wavelength.

Claim 6 **(Currently Amended)** A device according to claim 1, wherein the said planar optical waveguide, as part of the sensor platform, is self-supporting.

Claim 7 **(Currently Amended)** A device according to claim 1, wherein said planer the optical film waveguide, as part of the sensor platform,waveguide is an optical film waveguide having with a first optically transparent layer (a) (according to Figure 1) and a second optically transparent layer, said first optically transparent layer being on said a second optically transparent layer (b) (according to Figure 1) with and said second optically transparent layer having a lower refractive index than said first optically transparent layer (a).

Claim 8 **(Currently Amended)** A device according to claim 7, wherein said the material of the second optically transparent layer (b) comprises glass, quartz, or transparent thermoplastic plastics, preferably of the group comprising polycarbonate, polyimide, or polymethylmethacrylate, or polystyrene.

Claim 9 **(Currently Amended)** A device according to claim 7, wherein the refractive index of said the first optically transparent layer (a) is higher than 1.8.

Claim 10 **(Currently Amended)** A device according to claim 7-, wherein said ~~the~~ first optically transparent layer ~~(a)~~ comprises TiO_2, ZnO, Nb_2O_5, Ta_2O_5, HfO_2, or ZrO_2, ~~preferably Ta_2O_5 or Nb_2O_5~~.

Claim 11 **(Currently Amended)** A device according to claim 7, wherein a ~~the~~ thickness of said ~~the~~ first optically transparent layer ~~(a)~~ is between 40 and 300 nm, ~~preferably between 100 and 200 nm~~.

Claim 12 **(Currently Amended)** A device according to claim 7, wherein said optical film waveguide further has an additional optically transparent layer ~~(b') (according to Figure 1)~~ in contact with said first optically transparent layer and having a lower refractive index than said first optically transparent ~~and in contact with~~ layer ~~(a)~~, said additional optically transparent layer having ~~and with~~ a thickness of 5 nm ~~10 000~~ 10,000 nm, ~~preferably of 10 nm 1000 nm, is~~ and being located between said first and second ~~the~~ optically transparent layers ~~(a) and (b)~~.

Claim 13 **(Currently Amended)** A device according to claim 12, wherein said additional optically transparent layer reduces ~~the purpose of the intermediate layer is a reduction of the~~ surface roughness below said first optically transparent layer ~~(a)~~, reduces ~~or a reduction of the~~ penetration of an ~~the~~ evanescent field, of light guided in said first optically transparent layer ~~(a)~~, into ~~the~~ one or more layers located below said first optically transparent layer, improves ~~or an improvement of the~~ adhesion of said first optically transparent layer ~~(a)~~ to the one or more layers located below said first optically transparent layer, reduces ~~or a reduction of~~ thermally induced stress within said ~~the optical~~ sensor platform, or provides ~~a~~ chemical isolation of said first ~~the~~ optically transparent layer ~~(a)~~ from layers located below, by sealing of micro pores in said first optically transparent layer ~~(a)~~ against the layers located below.

Claim 14 **(Currently Amended)** A device according to claim 7, further comprising ~~wherein~~ an adhesion-promoting layer ~~(f) is~~ deposited on said first ~~the~~ optically transparent layer ~~(a)~~, for immobilizing ~~the immobilization of~~ biological, ~~or~~ biochemical or synthetic recognition elements.

Claim 15 **(Currently Amended)** A device according to claim 14, wherein said ~~the~~ adhesion-promoting layer ~~(f),~~ has a thickness of less than 200 nm~~, preferably of less than 20 nm~~.

Claim 16 **(Currently Amended)** A device according to claim 14~~,~~, wherein said ~~the~~ adhesion-promoting layer comprises chemical compounds of a ~~the~~ group consisting of ~~comprising~~ silanes, epoxides, and "self-organized functionalized monolayers".

Claim 17 **(Currently Amended)** A device according to claim 1, wherein said ~~laterally separated~~ measurement areas ~~(d)~~ are generated by ~~laterally selective~~ deposition of biological, ~~or~~ biochemical or synthetic recognition elements on said sensor platform.

Claim 18 **(Currently Amended)** A device according to claim 17, wherein said measurement areas are deposited by one or more methods of a ~~the~~ group consisting of ~~methods comprising~~ ink jet spotting, mechanical spotting by means of pin or pen, micro contact printing, fluidic contacting of said ~~the~~ measurement areas with the biological, ~~or~~ biochemical or synthetic recognition elements upon their supply in parallel or crossed micro channels, upon application of pressure differences or of electric or electromagnetic potentials~~, are applied for the deposition of the biological or biochemical or synthetic recognition elements~~.

Claim 19 **(Currently Amended)** A device according to claim 17, wherein, as the biological, ~~or~~ biochemical or synthetic recognition elements, components of a ~~the~~ group consisting of ~~comprising~~ nucleic acids ~~(DNA, RNA)~~, antibodies, aptamers, membrane-bound and isolated receptors, ~~their~~ ligands of the membrane-bound and isolated receptors, antigens for antibodies, histidin-tag components ~~ôhistidin-tag componentsö~~, cavities generated by chemical synthesis, for hosting molecular imprints~~, etc.~~, are deposited.

Claim 20 **(Currently Amended)** A device according to claim 17, wherein whole cells or cell fragments are deposited as the biological, ~~or~~ biochemical or synthetic recognition elements.

Claim 21 **(Currently Amended)** A device according to claim 17, wherein compounds, which are "chemically neutral" towards the analytes ~~analyte~~, are deposited between said ~~the laterally separated~~ measurement areas ~~(d)~~, in order to minimize nonspecific binding or adsorption.

Claim 22 **(Currently Amended)** A device according to claim 21, wherein the ~~said~~ compounds, which are chemically neutral ~~ôchemically neutralö~~ towards the analyte ~~analyte~~, are ~~selected from the groups comprising, for example,~~ albumines ~~such as bovine serum albumin, herring sperm, or polyethyleneglycols~~.

Claim 23 **(Currently Amended)** A device according to claim 7, wherein said first optically transparent layer has at least one ~~the incoupling of excitation light to the measurement areas (d) is performed by means of one or more~~ grating structure ~~structures (c) (according to Figure 1), which are~~ formed therein for incoupling excitation light to said measurement areas ~~in the optically transparent layer (a)~~.

Claim 24 **(Currently Amended)** A device according to claim 7, wherein said first optically transparent layer has at least one grating structure formed therein for ~~the~~ outcoupling ~~of~~ light guided in said first ~~the~~ optically transparent layer ~~(a) is performed by means of grating structures (c') (according to Figure 1), which are formed in the optically transparent layer (a)~~.

Claim 25 **(Currently Amended)** A device according to claim 23, wherein said first optically transparent layer also has at least one grating structure formed therein for ~~the~~ outcoupling ~~of~~ light guided in said first ~~the~~ optically transparent layer ~~(a) is performed by means of grating structures (c') (according to Figure 1), which are formed in the optically transparent layer (a), and wherein grating structures (c) and (c') formed in the optically transparent layer (a) have the same or different periodicity and are arranged in parallel or not in parallel to each other~~.

Claim 26 **(Currently Amended)** A device according to claim 25, wherein said incoupling and outcoupling grating structures are interchangeable with respect to incoupling and outcoupling ~~(c) and (c') can interchangeably be used as incoupling and / or outcoupling gratings~~.

Claim 27 **(Currently Amended)** A device according to claim 25 ~~7~~, wherein said incoupling and outcoupling ~~the~~ grating structures ~~(c) and optional additional grating structures (c')~~ have a period of 200 nm - 1000 nm and a grating modulation depth of 3 nm - 100 nm~~, preferably of 10 nm - 30 nm~~.

Claim 28 **(Currently Amended)** A device according to claim 27, wherein a ~~the~~ ratio of the grating modulation depth to a ~~the~~ thickness of said ~~the~~ first optically transparent layer ~~(a)~~ is equal or smaller than 0.2.

Claim 29 **(Currently Amended)** A device according to claim 23 ~~7~~, wherein said ~~the~~ grating structure ~~(c)~~ is (a) a relief grating with a rectangular ~~rightangular~~, triangular or semi-circular profile or (b) a phase or volume grating with a periodic modulation of a ~~the~~ refractive index in said first ~~the essentially planar~~ optically transparent layer ~~(a)~~.

Claim 30 **(Currently Amended)** A device according to claim 7, further comprising ~~wherein~~ a thin metal layer~~, preferably of gold or silver, optionally on an additional dielectric layer of lower refractive index than layer (a), for example of silica or magnesium fluoride, is~~ deposited between said first ~~the~~ optically transparent layer ~~(a)~~ and the immobilized biological or biochemical recognition elements, wherein a ~~the~~ thickness of said thin ~~the~~ metal layer ~~and the optional, additional intermediate layer~~ is ~~selected in such a way,~~ such that a surface plasmon at at least one of an ~~the~~ excitation wavelength and a ~~and / or at the~~ luminescence wavelength is excitable ~~can be excited~~.

Claim 31 **(Currently Amended)** A device according to claim 23 ~~7~~, wherein said ~~the~~ grating structure ~~(c)~~ is a diffractive grating with a uniform period.

Claim 32 **(Currently Amended)** A device according to claim 23 ~~7~~, wherein said ~~the~~ grating structure ~~(c)~~ is a multi-diffractive grating.

Claim 33 **(Currently Amended)** A device according to claim 25 ~~23~~, wherein said incoupling and outcoupling grating structures ~~(c) and optional additional grating structures (c')~~ are located outside a ~~the~~ region of said ~~the~~ sample compartments.

Claim 34 **(Currently Amended)** A device according to claim 25 ~~23~~, wherein said incoupling and outcoupling grating structures ~~(c) and optional additional grating structures (c')~~ extend over at least a portion of said ~~the range of multiple or all~~ sample compartments.

Claim 35 **(Currently Amended)** A device according to claim 23, wherein a portion of said ~~the material of the tightly~~ sealing layer ~~(g) in contact with the sensor platform, in the incumbant surface area,~~ is optically transparent both for ~~the~~ excitation radiation and ~~the~~ excited luminescence radiation at least within a ~~the~~ penetration depth of an ~~the~~ evanescent field.

Claim 36 **(Currently Amended)** A device according to claim 35, wherein said sealing ~~the~~ layer comprises a ~~(g) is provided in form of a two layer system, the~~ first layer ~~of which, to be brought into~~ that is in contact with a ~~the~~ surface of said ~~the~~ sensor platform, said first layer being transparent for the excitation radiation and the excited luminescence radiation, and a second layer ~~whereas the adjacent layer, being~~ that is located ~~more~~ remote from said ~~the~~ sensor platform, said second layer being ~~is~~ absorbent in a ~~the~~ spectral range of the excitation radiation and of the excited luminescence radiation.

Claim 37 **(Currently Amended)** A device according to claim 34, wherein said ~~the material of the tightly~~ sealing layer ~~(g) in contact with the sensor platform~~ is absorbent in a ~~the~~ spectral range of ~~the~~ excitation radiation and ~~of the~~ excited luminescence radiation.

Claim 38 **(Currently Amended)** A device according to claim 1, wherein said ~~the material of the tightly~~ sealing layer ~~(g) in contact with the sensor platform~~ is self-adhesive.

Claim 39 **(Currently Amended)** A device according to claim 1, wherein said ~~the material of the tightly~~ sealing layer ~~(g) in contact with the sensor platform~~ comprises a polysiloxane.

Claim 40 **(Currently Amended)** A device according to claim 1, wherein 5 - 1000~~, preferably 10 - 400~~ of said measurement areas are located in one of said sample compartments ~~compartment~~.

Claim 41 **(Currently Amended)** A device according to claim 1, wherein an individual one of said measurement areas ~~area~~ in said ~~a~~ sample compartments ~~compartment~~ occupies an area of 0.001 - 6 mm^2, and wherein different measurement areas ~~can~~ have similar or different sizes ~~size~~.

Claim 42 **(Currently Amended)** A device according to claim 1, wherein each of said ~~the~~ sample compartments has ~~have~~ a volume of 100 nl - 1 ml ~~each~~.

Claim 43 **(Currently Amended)** A device according to claim 1, wherein said~~, at the side facing away from the optically transparent layer (a), the~~ sample compartments are closed at a side facing away from said sensor platform except for inlet and outlet openings for ~~the~~ supply and ~~or~~ removal, respectively, of samples ~~and optional additional reagents, and~~ wherein the supply and ~~or~~ removal of the samples ~~and optional additional reagents~~ is performed in a closed flow-through system, and wherein ~~in case of~~ when liquid is supplied ~~supply~~ to said measurement areas or segments with common inlet and outlet openings, said inlet and outlet openings are ~~preferably~~ addressed row by row or column by column.

Claim 44 **(Currently Amended)** A device according to claim 1, wherein the supply of the samples ~~and optional additional reagents~~ is performed in parallel or crossed micro channels, affected by pressure differences or by electric or ~~by~~ electromagnetic potentials.

Claim 45 **(Currently Amended)** A device according to claim 1, wherein said ~~the~~ sample compartments have openings for ~~the~~ locally addressed supply or removal of samples or other reagents ~~reagants~~ at a ~~the~~ side facing away from said sensor platform ~~the optically transparent layer (a)~~.

Claim 46 **(Currently Amended)** A device according to claim 1, wherein compartments are provided for reagents, which are wetted and brought into contact with said ~~the~~ measurement areas during an ~~the~~ assay.

Claim 47 **(Currently Amended)** A device according to claim 1, wherein said sensor platform has optically or mechanically recognizable marks ~~are~~ provided thereon ~~on the sensor platform~~, the optically or mechanically recognizable marks at least one of facilitating ~~in order to facilitate the~~ adjustment of said sensor platform in an optical system and facilitating ~~and / or to facilitate the~~ combination of said ~~the~~ sensor platform with said sealing ~~the~~ layer having said ~~(g) comprising the~~ recesses for said ~~the~~ sample compartments.

Claim 48 **(Withdrawn - Currently Amended)** An analytical system for the determination of one or more luminescences, the analytical system comprising:

_____ ~~a.~~ at least one excitation light source;

_____ ~~b.~~ a device according to claim 1; and

_____ ~~c.~~ at least one detector for recording ~~the~~ emission light emanating from ~~the~~ at least one of said ~~or more~~ measurement areas ~~(d)~~ on said ~~the~~ sensor platform.

Claim 49 **(Withdrawn - Currently Amended)** An analytical system according to claim 48, wherein said planar ~~the~~ optical ~~film~~ waveguide ~~, as part of the sensor platform,~~ is an optical film waveguide having ~~with~~ a first optically transparent layer ~~(a) (according to Figure 1)~~ and a second optically transparent layer, said first optically transparent layer being on said ~~a~~ second optically transparent layer ~~(b) (according to Figure 1) with~~ and said second optically transparent layer having a lower refractive index than said first optically transparent layer, and wherein the excitation light emitted by said ~~the~~ at least one excitation light source is coherent and directed onto ~~the~~ one or more of said measurement areas at a ~~the~~ resonance angle for incoupling into said first ~~the~~ optically transparent layer ~~(a)~~.

Claim 50 **(Withdrawn - Currently Amended)** An analytical system according to claim 49, further comprising expansion optics, wherein said expansion optics expand the excitation light of said at least one light source ~~is expanded~~ to an essentially parallel ray bundle ~~by an expansion optics~~ and direct the essentially parallel ray bundle ~~directed~~ onto said ~~the~~ one or more measurement areas at the resonance angle for incoupling into said first ~~the~~ optically transparent layer ~~(a)~~.

Claim 51 **(Withdrawn - Currently Amended)** An analytical system according to claim 49, further comprising at least one diffractive optical element, wherein said at least one diffractive optical element divides the excitation light from said at ~~the~~ least one light source ~~is devided, by means of one or, in case of several light sources, by means of multiple diffractive optical elements, preferably Dammann gratings, or refractive optical elements, preferably micro-lens arrays,~~ into a multitude of individual beams having, ~~with as~~ similar intensities ~~intensity as possible of the individual beams originating from a common light source~~, the ~~which~~ individual beams being ~~are~~ directed essentially in parallel to each other onto laterally separated measurement areas.

Claim 52 **(Withdrawn - Currently Amended)** An analytical system according to claim 49, wherein said at least one excitation light source is at least two ~~or more~~ coherent light sources ~~with equal or different emission wavelength are used as excitation light sources~~.

Claim 53 **(Withdrawn - Currently Amended)** An analytical system according to claim 48, wherein said at least one detector is a ~~at least one~~ laterally resolving detector ~~is used for detection~~.

Claim 54 **(Withdrawn - Currently Amended)** An analytical system according to claim 53, wherein said laterally resolving detector is a ~~at least one detector from the group formed by~~ CCD camera ~~cameras~~, a CCD chip ~~chips~~, a photodiode array ~~arrays~~, an Avalanche diode array ~~arrays~~, a multi-channel plate ~~plates~~, or a ~~and~~ multi-channel photomultiplier ~~photomultipliers is used as the at least one laterally resolving detector~~.

Claim 55 **(Withdrawn - Currently Amended)** An analytical system according to claim 48, further comprising ~~wherein~~ optical components located at least one of between said excitation light source and said detector and said sensor platform and said detector, said optical components including at least two of ~~the group comprising~~ (a) lenses or lens systems for ~~the~~ shaping of ~~the~~ transmitted light bundles, (b) planar or curved mirrors for ~~the~~ deviation ~~and optionally additional shaping~~ of the transmitted light bundles, (c) prisms for ~~the~~ deviation and optionally spectral

separation of the transmitted light bundles, (d) dichroic mirrors for ~~the~~ spectrally selective deviation of parts of the transmitted light bundles, (e) neutral density filters for ~~the~~ regulation of ~~the~~ transmitted light intensity, (f) optical filters or monochromators for ~~the~~ spectrally selective transmission of parts of the transmitted light bundles, and (g) ~~or~~ polarization selective elements for ~~the~~ selection of discrete polarization directions of the excitation light or luminescence light ~~are located between the one or more excitation light sources and the sensor platform and / or between said sensor platform and the one or more detectors~~.

Claim 56 **(Withdrawn - Currently Amended)** An analytical system according to claim 48, wherein said excitation light source emits the excitation light ~~is launched~~ in pulses with a duration of 1 fsec to 10 min.

Claim 57 **(Withdrawn - Currently Amended)** An analytical system according to claim 48~~,~~, wherein the emission light from said at least one ~~the~~ measurement area ~~areas~~ is measured time-resolved.

Claim 58 **(Withdrawn - Currently Amended)** An analytical system according to claim 48, ~~wherein for referencing purposes~~ light signals of ~~the group comprising~~ the excitation light at a ~~the~~ location of said excitation ~~the~~ light source ~~sources or~~, the excitation light after expansion, the excitation light ~~of the excitation light or~~ after its multiplexing into individual beams, scattered light at an ~~the~~ excitation wavelength from a ~~the~~ location of ~~the~~ one or more laterally separated measurement areas, or ~~and~~ light of the excitation wavelength outcoupled by a ~~the~~ grating structure ~~structures (c) or (c')~~ are measured for reference.

Claim 59 **(Withdrawn - Currently Amended)** An analytical system according to claim 58, wherein said ~~the~~ measurement areas for determination of the emission light and of the reference light signals ~~signal~~ are identical.

Claim 60 **(Withdrawn - Currently Amended)** An analytical system according to claim 48, wherein launching of the excitation light and detection of the emission light from said at least

one ~~the one or more~~ measurement area ~~areas~~ is performed sequentially for one or more of said sample compartments.

Claim 61 **(Withdrawn - Currently Amended)** An analytical system according to claim 60, further comprising movable optical components for performing ~~wherein~~ the sequential excitation and detection ~~is performed using movable optical components~~, said movable optical components including at least two of ~~the group comprising~~ mirrors, deviating prisms, and dichroic mirrors.

Claim 62 **(Withdrawn - Currently Amended)** An analytical system according to claim 61, further comprising an essentially focus and angle preserving scanner for performing ~~wherein~~ the sequential excitation and detection ~~is performed using an essentially focus and angle preserving scanner~~.

Claim 63 **(Withdrawn - Currently Amended)** An analytical system according to claim 60, wherein said ~~the~~ sensor platform is moved between steps of sequential excitation and detection.

Claims 64-80 **(Canceled)**

Claim 81 **(Currently Amended)** A device according to claim 7, wherein said ~~laterally separated~~ measurement areas ~~(d)~~ are generated by ~~laterally selective~~ deposition of biological, ~~or~~ biochemical or synthetic recognition elements on said sensor platform.

Claim 82 **(Currently Amended)** A device according to claim 7, wherein said ~~the material of the tightly~~ sealing layer ~~(g) in contact with the sensor platform~~ is self-adhesive.

Claim 83 **(Currently Amended)** A device according to claim 7, wherein said ~~the material of the tightly~~ sealing layer ~~(g) in contact with the sensor platform~~ comprises a polysiloxane.

Claim 84 **(Currently Amended)** A device according to claim 7, wherein 5 - 1000 ~~, preferably 10 - 400~~ of said measurement areas are located in one of said sample compartments ~~compartment~~.

Claim 85 **(Currently Amended)** A device according to claim 7, wherein an individual one of said measurement areas ~~area~~ in said ~~a~~ sample compartments ~~compartment~~ occupies an area of 0.001 - 6 mm^2, and wherein different measurement areas ~~can~~ have similar or different sizes ~~size~~.

Claim 86 **(Currently Amended)** A device according to claim 7, wherein each of said ~~the~~ sample compartments has ~~have~~ a volume of 100 nl - 1 ml ~~each~~.

Claim 87 **(Currently Amended)** A device according to claim 7, wherein said, ~~at the side facing away from the optically transparent layer (a), the~~ sample compartments are closed at a side facing away from said first optically transparent layer except for inlet and outlet openings for ~~the~~ supply and ~~or~~ removal, respectively, of samples ~~and optional additional reagents~~, ~~and~~ wherein the supply ~~or~~ and removal of the samples ~~and optional additional reagents~~ is performed in a closed flow-through system, and wherein ~~in case of~~ a liquid is supplied ~~supply~~ to said measurement areas or segments with common inlet and outlet openings, said inlet and outlet openings are ~~preferably~~ addressed row by row or column by column.

Claim 88 **(Currently Amended)** A device according to claim 7, wherein the supply of the samples ~~and optional additional reagents~~ is performed in parallel or crossed micro channels, affected by pressure differences or by electric or ~~by~~ electromagnetic potentials.

Claim 89 **(Currently Amended)** A device according to claim 7, wherein said ~~the~~ sample compartments have openings for ~~the~~ locally addressed supply or removal of samples or other reagents ~~reagants~~ at a ~~the~~ side facing away from said first ~~the~~ optically transparent layer ~~(a)~~.

Claim 90 **(Currently Amended)** A device according to claim 7, wherein compartments are provided for reagents, which are wetted and brought into contact with said ~~the~~ measurement areas during an ~~the~~ assay.

Claim 91 **(Currently Amended)** A device according to claim 7, wherein said sensor platform has optically or mechanically recognizable marks ~~are~~ provided thereon ~~on the sensor platform~~, the optically or mechanically recognizable marks at least one of facilitating ~~in order to facilitate~~

~~the~~ adjustment of said sensor platform in an optical system and facilitating ~~and / or to facilitate the~~ combination of said ~~the~~ sensor platform with said sealing ~~the~~ layer having said ~~(g) comprising the~~ recesses for said ~~the~~ sample compartments.

Claim 92 **(Withdrawn - Currently Amended)** An analytical system for determining ~~the determination of~~ one or more luminescences, the analytical system comprising:

_____ ~~a.~~ at least one excitation light source;

_____ ~~b.~~ a device according to claim 7; and

_____ ~~c.~~ at least one detector for recording emission ~~the~~ light emanating from ~~the~~ at least one of said ~~or more~~ measurement areas ~~(d)~~ on said ~~the~~ sensor platform.